Mid-Term Revision
Grade 6

1. Complete the following:

1. The mass of body is ……..
2. …… is the amount of matter in an object.
3. Mass is the amount of matter that a body contains and it does not change according to……..
4. Mass is measured by different types of scales such as …… and ……
5. If an object mass on the earth is 12 kg, then this object's mass on the moon equals……..
6. …… is the measurement unit of mass which equals to the mass of one paper clip.
7. …… is the measurement unit of mass which equals to the mass of one liter of distilled water.
8. The mass of an object does not change when an object's …….. changes.
9. …… is the force with which a body is attracted to the earth.
10. The force of earth's attraction to a body is called…… and is measured by a unit which is called ……
11. …….. is measured in kilogram unit, while weight is measured in …….. unit.
12. Your weight changes depending on …….. or ……
13. The weight of a body on the earth's surface increases as the …….. Increases.
14. The gravitational force that affects on an apple whose mass is 200 g = …….. Newton
15. The gravitational force on a balloon……..when the distance between the balloon and the center of the earth decreases.
16. As the mass of the planets on which the body exists increases the …….. of the object increases.
17. If the weight of iron ball is 400 N, then it's mass equals……
18. The effect of weight is always directed towards……
19. The object's mass on the moon's surface…….. its mass on the earth's surface.

20. An object's weight on the moon's surface equals…….. its weight on the earth's surface.
21. The weight of a body is measured in……..unit, and …… is used to measure it.
22. The spring scale is used to measure …….. of the body, but the balance scale is used to measure ……..of the body.
23. Mass is measured by ……..scale, while weight is measured by……..scale.
24. Weight increases as the…….. of the planet increases.
25. When a mass of a desk is 15 kg, then its weight equals……
26. The weight of a wooden box on the earth's surface equals…….. times its weight on the moon's surface.
27. Newton is the measurement unit of weight which equals……grams.
28. Objects seems weightless inside a spacecraft due to the absence of……
29. The mass of a body on the earth is……, whereas its weight on the earth is……
30. Heat is one of the forms of ……..
31. Heat energy transfer from the object of …… temperature to the object of the…….. temperature.
32. …….. is the degree of hotness or coldness of a body.
33. Temperature is measured by using ……..
34. Temperature is considered as an indicator that helps us to express…….. or …….. of any body.
35. Temperature is the degree of …….. or …….. of a body.
36. …….. are the materials that allow heat to flow through.
37. …….. are the materials that don't allow heat to flow through.
38. Aluminum and copper are examples of …… conductors of heat.
39. Wood and glass are examples of …….. conductors of heat.
40. Aluminum conducts heat faster than ……..
41. …….. is a bad conductor of heat, while copper is a …….. Conductor of heat.
42. Handles of cooking pots (utensils) and kettles are made of …….. or ……..
43. Among the bad conductors of heat are ……, …….. and ……
44. Among the examples of good conductors of heat are…….. and ……

45. Air is used in making …… as it is an insulator.
46. …… is a bad conductor of heat.
47. ……., …… and …… are good conductors of heat.
48. Materials are classified according to conducting heat into …… and ……
49. Metals differ in conducting heat, we find out that …… Conducts heat faster than aluminum and ……..
50. Cooking pots are made of ……., while handles of cooking pots are made of ……..
51. The medical thermometer is used to measure the…… of human body and its scale is from 35 °C to ……°C
52. There is a constriction in the …… thermometer.
53. The scale of the clinical thermometer starts from…… and ends at……
54. To measure the temperature of liquids, we use……
55. To measure the temperature of human body we use……
56. The main idea of making thermometer is changing the …… of the liquid as the…… changes.
57. The liquid metal that can be seen easily through the thermometer glass is ……..
58. The scale of the Celsius thermometer starts from…….. to ……
59. Each degree in the scale of the medical thermometer is divided into…… parts.
60. The …… thermometer has no constriction.
61. Before using the medical thermometer, we must sterilize it using……..
62. Before using the medical thermometer, we must …….. to kill microbes.
63. Mercury is a liquid metal that …….. regularly by heating.
64. Before using the medical thermometer, we must…… it well to force the mercury to go back to the bulb.
65. Mercury does not …….. to the walls of the capillary tube.
66. The …….. thermometer is used to measure water temperature.
67. The melting point of ice is…… whereas ……. is the boiling point of water.
68. The kinds of thermometer are…….. and ……..
69. The atmosphere is attracted to the earth by the effect of ……

70. Nitrogen represents……% of the total percentage of the atmosphere, while…….. represents 21% of the volume of the atmosphere.
71. The atmosphere protects the earth by absorbing…… radiation coming from outer space.
72. Oxygen gas represents…… % of the volume of the atmosphere and its symbol is…….
73. Oxygen gas of the atmosphere is consumed during…… and ……
74. The oxygen molecule consists of …… atoms, while the …….. molecule consists of three oxygen atoms.
75. Oxygen gas is scarcely soluble in ……
76. Oxygen gas combines directly with most elements forming……
77. Oxygen gas is collected by the displacement of…….. Downwards because oxygen does not dissolve in water.
78. The rapid combination between oxygen & elements producing heat and light is called……., while the slow combination between them in the presence of moisture is called ……..
79. Oxyacetylene flame is used for…… and …… of metals.
80. The mass of steel wool …… after burning.
81. Manganese dioxide increases the decomposition of…….. into oxygen and water.
82. The only source of oxygen is…….. process performed by……..
83. Divers use…… cylinder during diving underwater.
84. Water molecule consists of two…… atoms and one…….. atom.
85. Manganese dioxide acts as a …….. in the preparation of oxygen in the lab.
86. …….. protects the earth from harmful radiation that comes from the sun.
87. …… gas is used in the photosynthesis process that green plants make, while …….. gas is produced during this process.
88. The earth's atmosphere is ……..
89. Oxygen gas is prepared from…… in the presence of……..
90. The oxygen gas is produced plentifully from…… during…… process.
91. …….. gas doesn't burn but helps in burning.
92. During photosynthesis process, green plants use ……gas and releases …….. gas.
93. Hydrogen peroxide dissociates in the presence of manganese dioxide into…… and ……..

2. Write the scientific term for the following:

1. The amount of matter in an object. (……)
2. The attraction force of the earth on a body. (……)
3. The device that is used to measure the mass of chemicals in lab. (……)
4. The device that is used to measure the mass of objects. (……)
5. The unit of measuring mass. (……)
6. The typed of scales that is used to measure large mass such as cheese and fruits. (……)
7. The device that is used to measure the weight. (……)
8. The measuring unit of weight. (……)
9. The form of energy that transfers from a hot body to a cold one. (……)
10. The indicator that helps us to express the state of a body as for hotness or coldness. (……)
11. The degree of hotness or coldness of a body. (……)
12. A device used in measuring temperature. (……)
13. A group of materials including copper, aluminium and iron. (……)
14. A group of materials including wool, wood and glass. (……)
15. The best metal in conducting heat. (……)
16. The materials that are used in making of cooking pots and kettles. (……)
17. The materials that are used in making of handles of cooking pots and kettles. (……)
18. An insulating material which is left between the two glass sheets of the insulating glass window. (……)
19. The type of clothes that is used in winter to keep our bodies' temperature. (……)
20. The tool that is used to measure the temperature of liquids. (……)
21. The instrument that is used to measure the temperature of human body. (……)
22. The modern device which is used to measure the temperature of the human body especially children. (……)
23. The type of thermometer that is graduated from 35 °C to 42 °C. (……)
24. The type of thermometer in which scale ranges from 0 °C to 100 °C. (……)
25. The liquid that is used in making of thermometers, and it is a good conductor of heat.
26. The liquid that is used in sterilizing the clinical thermometer. (……)
27. The part of the medical thermometer that prevents mercury from going back to the bulb easily.

28. The part of the medical thermometer that is filled with mercury. (……)
29. Flame is used in cutting and welding metals. (……)
30. A gas composed of three oxygen atoms. (……)
31. It is the layer that protects the earth from harmful radiation that comes from the sun. (……)
32. The gas that combines with oxygen to produce a flame whose temperature is sufficient to melt metals. (……)
33. The process that is performed by green plants in which carbon dioxide is absorbed from air to produce food and oxygen. (……)
34. The chemical substance that acts as a catalyst in the preparation of oxygen. (……)

3. Put (√) or (X) and correct the wrong ones:

1. Mass is measured by spring scale. ( )
2. Weight is the amount of material in the body. ( )
3. Mass is changed by changing position. ( )
4. Weight is measured in kg. ( )
5. One kilogram equals 1000 grams which equals one liter of distilled water. ( )
6. Mass is the force of the earth's gravity on an object. ( )
7. The weight of objects can be measured by using the balance scale. ( )
8. Mass is the amount of matter attracted to the earth. ( )
9. Weight is a constant amount that changes as the location changes. ( )
10. Weight is the gravitational force with which a body is attracted to the earth. ( )
11. Newton is the measurement unit of weight. ( )
12. When the mass of an object on the earth equals 2 kg, then its weight equals 200 N. ( )
13. By increasing the mass of a piece of stone, its weight decreases. ( )
14. As the weight of a planet increases, the weight of a body on it decreases. ( )
15. When your weight on earth's surface is 600 N, then your weight on the moon's surface is 6 N
16. An object's weight on the moon is $\frac{1}{4}$ of its weight on the earth. ( )
17. Heat is the degree of hotness or coldness of a body. ( )
18. Iron and wood allow heat to flow through. ( )
19. Wool and plastic are examples of heat conductors. ( )

20. Air is a heat insulator. ( )
21. Copper is a good conductor of heat. ( )
22. Metals are used in making of handles of cooking pots. ( )
23. Wool is a good conductor of heat. ( )
24. Cooking pots and kettles are made of plastic. ( )
25. Heat transfers from cold object to hot object. ( )
26. Wool and heavy blankets are used to keep the body warm as they are heat conductors. ( )
27. Air is a bad conductor of heat. ( )
28. Different metals transfer heat by the same rate. ( )
29. Aluminum conducts heat faster than copper. ( )
30. The Celsius thermometer is used for measuring the temperature of the human body. ( )
31. The scale of the medical thermometer starts from zero until 100 Celsius degree. ( )
32. The medical thermometer is used for measuring the temperature of liquids. ( )
33. Temperature is measured by using thermostat. ( )
34. We can depend on touching to measure the temperature of patients. ( )
35. The medical thermometer is graduated from 35 °C to 45 °C. ( )
36. The scale of Celsius thermometer starts from 35 °C to 42 °C. ( )
37. Before using the medical thermometer, we must sterilize it using water. ( )
38. We measure the temperature of boiling water using the clinical thermometer. ( )
39. The normal temperature of healthy person is 39 °C. ( )
40. There is a constriction above the bulb in the Celsius thermometer. ( )
41. Each degree in the scale of the medical thermometer is divided into 10 parts. ( )
42. The main idea of making thermometer is the change in the volume of liquids according to the change in temperature. ( )
43. The mercury is characterized by expanding by heating and contracting by cooling. ( )
44. The liquid which is used in the medical thermometer is mercury. ( )
45. The medical thermometer and the Celsius thermometer are among the types of thermometers.
46. The mercury is considered a bad conductor of heat. ( )
47. Alcohol does not stick on the walls of the capillary tube, so it is used in making thermometers.
48. The atmosphere protects earth from harmful ultraviolet radiation. ( )

49. Oxygen molecule consists of three oxygen atoms. ( )
50. Oxygen gas represents 21% of the atmospheric air. ( )
51. The mass of substance decreases after combining with oxygen. ( )
52. The erosion of the material which is made of iron occurs when exposed to moisture. ( )

4. Mention one function (importance) of:

1. The spring scale: ……
2. The sensitive scale: ……
3. The balance scale:……
4. Good conductors of heat: ……
5. Bad conductors of heat: ……
6. The thermometer: ……
7. The medical thermometer: ……
8. The Celsius thermometer:……
9. The mercury in thermometers:……
10. The constriction in the medical thermometer:……
11. Oxyacetylene flame……
12. The ozone layer……
13. The atmosphere……
14. Catalyst……
15. Oxygen gas……
16. The air pollutants……

5. Give reason for each the following:

1. An object falls downwards.

2. The moon's gravity is less than the earth's gravity.

3. The weight of an object is affected by its mass.

4. The balance scale should be placed horizontally on a stable shelf.

5. The weight of a body on a balloon is smaller than its weight on the earth.

6. The weight of a person on the earth is heavier than his weight on the moon.

7. The mass of a body on the earth's surface = the mass of the same body on the moon's surface.

8. A space filled with air is left between the two glass sheets of the insulating glass window?

9. Gaps are left between the railway bars?

10. Cooking pots are made of aluminum or stainless steel?

11. We wear wool clothes in winter?

12. Plastic and wood are used to make handles of cooking pots?

13. In the medical thermometer, there is a constriction above the mercury bulb?

14. We must shake the medical thermometer well before using it?

15. Mercury is used in making thermometers?

16. The medical thermometer is not used for measuring the boiling point of water?

17. The mercury gives a wide range to measure temperature?

18. The medical thermometer must be sterilized before using?

19. It is dangerous to seize the thermometer firmly with our teeth?

20. Although oxygen is consumed during respiration, its % remains stable in the atmosphere?

21. Using oxyacetylene flame in cutting metals?

22. Although smoke and dust are considered air pollutants, they have an important role in air?

23. The atmosphere is very important for the continuity of life on the earth surface?

24. Oxygen is produced by downward displacement of the water in the flask during its preparation in the laboratory?

25. Mountain climbers use oxygen cylinders?

26. The pillars of the bridges are isolated from the atmospheric air by paints?

27. When you burn a ball of cleansing wire strongly, its mass increases?

6. What happens if...?:

1. The mass of an object increases.

2. The distance between a person in a balloon and the center of the earth increases.

3. A body moves away from the center of the earth according to its mass and weight.

4. You hold a glass of hot tea with your hand.

5. You hold a cube of ice with your hands.

6. No gaps are left between railway bars.

7. Heavy woolen clothes are used in winter.

8. There is no constriction in the medical thermometer?

9. The mercury bulb of the medical thermometer is broken?

10. You use the medical thermometer without sterilizing it?

11. Leaving iron nails in moist air for a long time.

12. There is no gravitational force on the earth.

13. The ratio of oxygen gas in air decreases.

7. Compare between each of the following:

1. Mass and weight

Points of comparison	Mass	Weight
Definition		
Measurement unit		
Measurement devices		
Direction		
Changing the place		

2. Aluminum and wood

Points of comparison	Aluminum	Wood
The ability to conduct heat	……	……
Uses	……	……

3. Heat conductors and heat insulators:

Points of comparison	Heat Conductors	Heat insulators
Definition	……	……
Examples	……	……
Uses	……	……

4. Medical thermometer & Celsius thermometer

Points of comparison	Medical thermometer	Celsius thermometer
Usage	……	……
structure	……	……
Used liquid	……	……
Scale	……	……

8. Problems:

1. **If an object's mass on the earth = 30 kg**

   Calculate: a. Its mass on the moon. = ……

   b. Its weight on the earth. =……

   c. Its weight on the moon. = ……

2. **An object whose weight is 30 Newton on the earth's surface.**

   Calculate: a. Its mass on the earth's surface. = ……

   b. Its mass on the moon's surface. =……

   c. Its weight on the moon's surface. = ……

3. **If a body's mass is 30 kg on the moon's surface.**

   Calculate: a. Its weight on the earth. = ……

   b. Its weight on the moon. =……

   c. Its mass on the earth. = ……

4. **An object whose weight on the moon's surface is 100 Newton.**

   Calculate: a. Its weight on the earth's surface. = ……

   b. Its mass on the earth's surface. =……

   c. Its mass on the moon's surface. = ……

Model answers

1. Complete the following:

1. The amount of matter that the object contain
2. Mass
3. Place or physical state or shape
4. One arm scales - two arm scales
5. 12 kg
6. Gram
7. Kg
8. Place
9. weight
10. weight – Newton
11. mass – Newton
12. the distance from the center of the earth – the planet where we live
13. mass
14. 2
15. Increases
16. Weight
17. 40 kg
18. Center of the earth
19. Equals
20. $\frac{1}{6}$
21. Newton – spring scale
22. Weight – mass
23. Balance – spring
24. Mass
25. 150 N
26. 6
27. 100
28. Gravity
29. Fixed – variable
30. Energy
31. Higher – lower
32. Temperature
33. Thermometers
34. Hotness – coldness
35. Hotness – coldness
36. Heat conductors
37. Heat insulators
38. Good
39. Bad
40. Iron
41. Wood – good
42. Wood – plastic
43. Wood – plastic – air
44. Copper – aluminium
45. Insulating glass windows
46. Wood
47. Copper, aluminium and iron
48. Heat conductors – heat insulators
49. Copper – iron
50. Aluminium – wood
51. Temperature – 42
52. Medical
53. 35 °C to 42°C
54. Celsius thermometers
55. Medical thermometer
56. Volume – temperature
57. Mercury
58. 0 °C to 100°C
59. 10
60. Celsius
61. Ethyl alcohol
62. Sterilize it
63. Expands
64. Shake
65. Stick
66. Celsius
67. 0 °C - 100 °C
68. Medical thermometer – Celsius thermometer
69. Gravity
70. 78 – oxygen
71. Ultraviolet
72. 21 – O_2
73. Respiration – combustion
74. Two – ozone
75. Water
76. Element oxide
77. Water
78. Oxidation – combustion
79. Cutting – welding
80. Increases

81. Hydrogen peroxide
82. Photosynthesis – green plants
83. Oxygen
84. Hydrogen – oxygen
85. Catalyst
86. Ozone layer
87. Carbon dioxide – oxygen
88. A mixture of gases surrounding the earth.
89. Hydrogen peroxide – manganese dioxide.
90. Green plants – photosynthesis
91. Oxygen
92. Carbon dioxide – oxygen
93. Oxygen - water

2. Write the scientific term for the following:

1. Mass
2. Weight
3. Sensitive scale
4. Scale
5. Gram or kilogram
6. Balance scale
7. Spring scale
8. Newton
9. Heat
10. Temperature
11. Temperature
12. Thermometer
13. Heat conductors
14. Heat insulators
15. Copper
16. Heat conductors
17. Heat insulators
18. Air
19. Woolen clothes
20. Celsius thermometer
21. Medical thermometer
22. Digital thermometer
23. Medical thermometer
24. Celsius thermometer
25. Mercury
26. Ethyl alcohol
27. Constriction
28. Mercury bulb
29. Oxy-acetylene flame
30. Ozone gas
31. Ozone layer
32. Oxygen gas
33. Photosynthesis process
34. Oxygen
35. Manganese dioxide

3. Put (√) or (X) and correct the wrong ones:

1. (X) balance scale
2. (X) mass
3. (X) mass is fixed by changing position
4. (X) Newton
5. (√)
6. (X) weight
7. (X) spring scale
8. (X) is the amount of matter in object
9. (X) weight is variable amount
10. (√)
11. (√)
12. (X) weight = 20 N
13. (X) increasing mass will increase weight
14. (X) as mass of planet increases, weight increases
15. (X) weight on moon surface = 600/6 = 100 N
16. (X) weight on the moon = (1/6) weight on the earth
17. (X) temperature is the degree of hotness or coldness
18. (X) iron and copper allow heat to flow through
19. (X) wool and plastics are heat insulators
20. (√)
21. (√)
22. (X) Metals are used in making cooking pots
23. (X) wool is a bad conductor of heat
24. (X) made of aluminium
25. (X) hot object to cold object
26. (X) they are heat insulators
27. (√)
28. (X) by different rates
29. (X) copper conducts heat faster than aluminium
30. (X) medical thermometer
31. (X) Celsius thermometer
32. (X) temperature of human body
33. (X) thermometers
34. (X) we cannot depend on touching
35. (X) 35 °C to 42 °C
36. (X) medical thermometer
37. (X) Using ethyl alcohol
38. (X) Using Celsius thermometer
39. (X) 37 °C
40. (X) in the medical thermometer
41. (√)

42. (√)
43. (√)
44. (√)
45. (√)
46. (X) good conductor of heat
47. (X) Mercury
48. (√)
49. (X) two
50. (√)
51. (X) increase
52. (√)

4. Mention one function (importance) of:

1. Used to measure weight of any object
2. Used to measure small masses (as gold and chemicals)
3. Used to measure large masses (as vegetables and fruits)
4. Used in making cooking pots and kettles
5. Used in making handles of cooking pots, electric irons and kettles.
6. Used to measure the temperature
7. Used to measure the temperature of human body
8. Used to measure the temperature of liquids
9. Mercury expands regularly with increasing temperature and contracts by decreasing temperature
10. Prevent the mercury from going back to the bulb quickly to can read the temperature easily
11. Cutting and welding metals
12. Protect the earth by absorbing UV radiation coming from outer space.
13. Protect the earth by absorbing UV radiation coming from outer space.
14. Catalyst speeds up the speed of the reaction without changing quantity or properties of products
15. Used by mountain climbers.
16. Help in the condensation of water vapor and falling of rains or snow

5. Give reason for each the following:

1. Due to gravity
2. Because the earth has bigger mass than the moon (6 times)
3. Because as the mass of object increases, its weight increases.
4. To avoid vibrations
5. Because the weight of an object decreases, as the distance from the center of the earth increases.
6. Because as the mass of the planet increases, the gravitational force increases and the weight increases.
7. Because mass is a fixed value regardless place or physical state.
8. To prevent the leakage of heat as air is a heat insulator
9. To avoid train accidents as iron is good conductor of heat which expands and twists by heat
10. Because aluminium and stainless steel are good conductors of heat.
11. To keep our bodies warm and prevent the leakage of heat.
12. Because plastic and wood are bad conductors of heat.
13. To prevent mercury from going back to the bulb quickly to read the temperature easily.
14. To force the mercury to go back to the bulb.
15. Because mercury is a good heat conductor – give a wide range to measure temperature – does not stick on the wall of the thermometer.
16. Because the scale of medical thermometer ranges from 35 °C to 42 °C ,while water boils at 100°C
17. Because mercury remain liquid between (-39 °C) to (357 °C)
18. To kill microbes
19. In order not to break it as mercury is toxic
20. Because the ratio of oxygen is compensated by green plants during photosynthesis process.

21. Because oxy-acetylene flame is hot enough (3500 °C) for cutting and welding of metals.
22. Because air pollutants help in the condensation of water vapor and falling of rains or snow
23. Because it protects the earth by absorbing UV radiation coming from the outer surface.
24. Because oxygen is scarcely soluble in water.
25. Because oxygen is heavier than air, so it decreases as we rise above the earth's surface.
26. To prevent them from rusting and erosion.
27. Because iron reacts with oxygen forming iron oxide.

6. What happens if...?:

1. Weight of the object will increase.
2. Weight of the person will decrease.
3. The mass will be constant and the weight will decrease.
4. I will feel warm because heat transfer from object of higher temperature (hot tea) to the object of lower temperature (my hand)
5. I will feel cold because heat transfer from object of higher temperature (my hand) to the object of lower temperature(ice)
6. Train accidents will occur.
7. We will feel warm because wool is heat insulator which prevents leakage of heat.
8. The mercury will go back to the bulb quickly, and the reading of the temperature degree will be wrong.
9. We will be at risk because mercury is toxic
10. We will be infected due to microbes
11. Iron nail will react slowly with oxygen in moist medium to form iron oxide.
12. UV radiations will cause many diseases to the earth's people.
13. The ratio will be compensated by green plants during photosynthesis process.

7. Compare between each of the following:

Points of comparison	Mass	Weight
Definition	Amount of matter inside the object	Is the force by which the body is attracted to the earth
Measurement unit	gm or kg	Newton
Measurement devices	Sensitive scale and common scale	Spring scale
Direction	No effect on a certain direction	Toward the center of the earth
Changing the place	constant	variable
Points of comparison	**Aluminum**	**Wood**
The ability to conduct heat	Good conductor of heat	Bad conductor of heat
Uses	Making cooking pans and kettles	Making the handles of cooking pans and kettles

Points of comparison	Heat Conductors	Heat insulators
Definition	Materials that allow heat to flow through	Materials that don't allow heat to flow through
Examples	Copper, aluminum and iron	Wood, plastic and air

Points of comparison	Medical thermometer	Celsius thermometer
Usage	Measure the temperature of human body	Measure the temperature of liquids
structure	• Transparent thick glass tube • Capillary tube • Constriction • Mercury bulb	• Transparent thick glass tube • Capillary tube • Mercury bulb
Used liquid	Mercury	Mercury
Scale	35 °C to 42 °C	0 °C to 100 °C

8) Problems:

1. **a) Mass on moon = mass on earth = 30 kg**
   b) Weight on the earth = mass of the earth x 10 = 30x10 = 300 N
   c) Weight on the moon = $\frac{1}{6}$ weight on the earth = $\frac{1}{6}$ x 300 = 50 N

2. **a) Mass on the earth =(weight on the earth / 10)=30/10 = 3 Kg**
   b) Mass on moon = mass on earth = 3 Kg
   c) Weight on the moon = $\frac{1}{6}$ x weight on the earth = $\frac{1}{6}$ x 30 = 5 N

3. **a) Weight on the earth = (mass on the earth or moon) x 10 = 30 x 10 = 300 N**
   b) Weight on the moon = $\frac{1}{6}$ x weight on the earth = $\frac{1}{6}$ x 300 = 50 N
   c) Mass on the earth = mass on the moon = 30 Kg

4. **a) Weight on the earth = 6 x weight on the moon = 6 x 100 = 600 N**
   b) Mass on the earth = (weight on the earth / 10) =600/10 = 60 kg
   c) Mass on the moon = mass on the earth = 60 Kg